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52. The method of Claim 47, wherein each of said encoded representations is a representation of the entire input media signal.

53. The method of claim 47, further comprising storing the plurality of encoded representations of the input media signal in a memory, wherein the memory comprises at least one from the group consisting of: a media server, download server, a video server, a hard disk drive, a CD rewriteable drive, and a read/write DVD drive.

54. The method of claim 47, further comprising storing the plurality of encoded representations of the input media signal in a memory for streaming at least one of the encoded representations to a decoder.

REMARKS

In response to the Office Action, Applicant respectfully requests the Examiner to reconsider the above-captioned application in view of the foregoing amendments and the following comments.

The specific changes to the amended claims are shown on a separate set of pages hereto and entitled VERSION WITH MARKINGS TO SHOW CHANGES MADE, which follows the signature page of this Amendment. On this set of pages the insertions are underlined while the deletions are stricken through.

Discussion of Claim Rejections Under 35 U.S.C. § 102(e)

In the Office Action, the Examiner rejected Claims 1-12, 14-17, 19, 20, 22, 24-32, 34-42, 44, and 45 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 20001/0013952, to Boon (hereinafter "Boon").

One embodiment of the invention relates to encoding an input video stream to produce multiple encoded and compressed versions or representations of the stream. See Section II of the Specification, titled "Overview of the Invention," page 12, lines 17-21. The different versions can be configured for real-time transmission at different data rates to different users depending upon, for example, the bandwidth of the transmission channel to each user. A high bit-rate/bandwidth version, for example, can be transmitted to a user having a high-bandwidth link to provide a high-quality video signal. A lower bit-rate/bandwidth version, for example, can be transmitted to a user having a low-bandwidth link with a resulting lower quality signal. (See Specification, page 14, line 20 through page 15, line 3)

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In accordance with one embodiment, different encoding parameters can be used during the encoding process for each of the multiple representations so that each representation is configured for its intended purpose. *See Specification* page 14, lines 14-19. Representations can be configured for low, medium, or high bandwidth streaming, for example, or for decoding by low, medium, or high power processors. *See Specification*, page 14, line 20 through page 15, line 3. Each representation is independent of the other representations and can be decoded to render a presentation.

In accordance with one embodiment, a set of synchronization points is selected or identified in each of multiple encoded representations of a video stream. The synchronization points can enable a decoding processor to switch from decoding one representation to decoding another representation at any synchronization point in real-time. *See Section II of the Specification*, titled "Overview of the Invention," page 12, lines 22-30. Each of the synchronization points in an encoded representation preferably has a corresponding synchronization point in the other representations. The corresponding synchronization points are preferably located at the same temporal location in each of the streams. *See Specification*, page 21, lines 15-20. In one embodiment, the synchronization points are encoded frames that can be independently decoded without reliance upon any other encoded frame data. *See Specification*, page 22, line 29 through page 23, line 3.

Turning to the claims, it is seen that independent Claim 1, as amended, recites: "encoding said input media signal to generate the plurality of encoded representations, wherein at least a portion of the media signal is included in each representation and each representation is encoded according to a different set of encoding parameters." Independent Claims 9, 10, 15, 20, 24, 34, and 35 recite similar limitations.

In contrast, Boon describes that an image signal can be encoded one of two alternative ways: (i) with shape data or (ii) with shape and texture data. In the Office Action, the Examiner stated that Boon discloses generating a plurality of encoded representations because it shows an input media signal being encoded independently via one of two methods, one having shape and texture data, the other only having shape data. Applicant respectfully submits that Boon only encodes for one representation for each portion of the media signal. In Boon, the encoded representation includes either (i) shape data or (ii) shape and texture data. Boon does not teach

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or suggest encoding a representation of a selected part of the media signal by *each* of the methods.

Since Boon fails to teach or suggest at least this limitation, Applicant respectfully submits that independent Claims 1, 9, 10, 15, 20, 24, 34, and 35 are in condition for allowance. Dependent Claims 13, 18, 21, 23, 33, and 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Boon in view of U.S. Patent Application Publication No. 200021/0038674, to Trans. Since Claims 13, 18, 21, 23, 33, and 43, each depend on one of Claims 1, 10, 15, 20, Applicant respectfully submits that these claims are allowable for at least the reasons discussed above and the subject matter of their own limitations.

Summary

Applicant has endeavored to address all of the Examiner's concerns as expressed in the outstanding Office Action. Accordingly, amendments to the claims for patentability purposes, the reasons therefore, and arguments in support of the patentability of the pending claim set are presented above. Any claim amendments which are not specifically discussed in the above remarks are not made for patentability purposes, and the claims would satisfy the statutory requirements for patentability without the entry of such amendments. In addition, such amendments do not narrow the scope of the claims. Rather, these amendments have only been made to increase claim readability, to improve grammar, and to reduce the time and effort required of those in the art to clearly understand the scope of the claim language. In light of the above amendments and remarks, reconsideration and withdrawal of the outstanding rejections is specifically requested. If the Examiner has any questions which may be answered by telephone, he is invited to call the undersigned directly.

Respectfully submitted,

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Dated: 2/13/2003

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please amend Claims 1, 9, 10, 24, and 34, as follows:

1. (Twice Amended) A method of producing a plurality of encoded representations of an input media signal, the method comprising:

providing the input media signal;
encoding said input media signal to generate the plurality of encoded representations, wherein at least a portion of the media signal is included in each representation and each representation is encoded according to a different set of encoding parameters; and

designating a plurality of synchronization points such that switching between a decoding of one of said encoded representations and another of said encoded representations can be performed with no substantial discontinuity.

9. (Twice Amended) A computer readable medium having stored thereon a plurality of instructions which, when executed by a processor in a computer system, cause the processor to perform the steps of:

accepting an input media signal;
encoding said input media signal to generate a plurality of encoded representations, wherein at least a portion of the media signal is included in each representation and each encoded representation is encoded according to a different set of encoding parameters; and

indicating a plurality of synchronization points such that switching between a decoding of one of said encoded representations and another of said encoded representations can be performed with no substantial discontinuity.

10. (Twice Amended) A system for producing a plurality of encoded representations of a video input sequence comprising:

a video encoder configured to generate said plurality of encoded representations of said video input sequence, wherein at least a portion of the media signal is included in each representation and said video encoder encodes each representation according to a different set of encoding parameters, and wherein the video encoder is further configured

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to designate a plurality of synchronization points such that switching between a decoding of one of said encoded representations to another of said encoded representations can be performed with no substantial discontinuity; and

an output module configured to output said encoded representations.

24. (Twice Amended) A method of producing a plurality of encoded representations of an input media signal comprising:

providing the input media signal;

generating a set of data based upon said input media signal; and

using said set of data to generate the plurality of encoded representations of said input media signal, wherein at least a portion of the media signal is included in each representation and each encoded representation is encoded according to a different set of encoding parameters.

34. (Twice Amended) A computer readable medium having stored thereon a plurality of instructions which, when executed by a processor in a computer system, cause the processor to perform the steps of:

accepting an input media signal;

generating a set of data from said input media signal; and

using said set of data to generate a plurality of ~~independent~~ independently encoded representations of said input media signal, wherein at least a portion of the media signal is included in each representation and each encoded representation is encoded according to a different set of encoding parameters.

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